

REMARKS

In the non-final Office Action, the Examiner rejects claims 1, 2, 4-9, 11-18, and 20-22 under 35 U.S.C. § 102(e) as anticipated by AYRES (U.S. Patent No. 6,597,699); rejects claims 10 and 19 under 35 U.S.C. § 103(a) as unpatentable over AYRES in view of CHAPMAN et al. (U.S. Patent No. 6,628,609); rejects claims 23, 24, and 27-29 under 35 U.S.C. § 103(a) as unpatentable over AYRES in view of CLARK et al. (U.S. Patent No. 6,442,588); and objects to claims 3, 25, and 26 as allowable if rewritten into independent form.

By way of the present amendment, Applicant amends the Specification to improve form. Applicant further cancels claims 2, 3, and 25 without prejudice or disclaimer, amends claims 1, 6, 9, 10, 14, 15, 17-19, 21, 23, 26, 27, and 29 to improve form, and adds claims 30-32. No new matter has been added by way of the present amendment. Claims 1, 4-24, and 26-32 are pending.

Applicant notes with appreciation the indication that claims 3, 25, and 26 would be allowable if rewritten into independent form to include all the features of the base claim and any intervening claims.

In the Office Action, the Examiner rejects pending claims 1, 4-9, 11-18, and 20-22 under 35 U.S.C. § 102(e) as allegedly anticipated by AYRES. Applicant respectfully traverses this rejection with respect to the claims, as currently amended.

Applicant amends independent claim 1 herein to include the features from claim 3, which the Examiner indicates contains allowable subject matter. As such, Applicant respectfully requests that the rejection of claim 1 be reconsidered and withdrawn for at least the reasons given

above with respect to claim 1.

Claims 4-9 and 11-14 depend from claim 1. Therefore, Applicant respectfully requests that the rejection of claims 4-9 and 11-14 be reconsidered and withdrawn.

Amended independent claim 15 is directed to a method for configuring a router system. The method includes configuring a plurality of virtual routers, where at least one virtual router of the plurality of virtual routers is configured to operate as a backbone router and at least one other virtual router of the plurality of virtual routers is configured to operate as a regional router; defining at least one resource to be shared by the plurality of virtual routers; and creating a router profile for each of the plurality of virtual routers. AYRES does not disclose or suggest this combination of features.

For example, AYRES does not disclose or suggest configuring a plurality of virtual routers, where at least one virtual router of the plurality of virtual routers is configured to operate as a backbone router and at least one other virtual router of the plurality of virtual routers is configured to operate as a regional router. This feature is similar to the feature that was recited in canceled claim 3. AYRES discloses that virtual router instances 148A-148C may be associated with different customers (see, for example, Fig. 7), but AYRES in no way discloses or suggests at least one virtual router instance being configured to operate as a backbone router and at least one other virtual router instance being configured to operate as a regional router, as required by amended claim 15.

For at least the foregoing reasons, Applicant submits that claim 15 is not anticipated by AYRES.

Claims 16-18 and 20-22 depend from claim 15. Therefore, Applicant submits that these claims are not anticipated by AYRES for at least the reasons given above with respect to claim 15.

Claims 10 and 19 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over AYRES in view of CHAPMAN et al. Applicant respectfully traverses this rejection.

Claim 10 depends from claim 1. The disclosure of CHAPMAN et al. does not remedy the deficiencies in the disclosure of AYRES set forth above with respect to claim 1. Therefore, Applicant submits that claim 10 is patentable over AYRES and CHAPMAN et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claim 19 depends from claim 15. The disclosure of CHAPMAN et al. does not remedy the deficiencies in the disclosure of AYRES set forth above with respect to claim 15. Therefore, Applicant submits that claim 19 is patentable over AYRES and CHAPMAN et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 15.

Claims 23, 24, and 27-29 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over AYRES in view of CLARK et al. Applicant respectfully traverses this rejection.

Applicant amends independent claim 23 herein to include the features from claim 25, which the Examiner indicates contains allowable subject matter. As such, Applicant respectfully requests that the rejection of claim 23 be reconsidered and withdrawn.

Claim 24 depends from claim 23. Therefore, Applicant respectfully requests that the rejection of claim 24 be reconsidered and withdrawn for at least the reasons given above with respect to claim 23.

Amended independent claim 27 is directed to router system that includes a plurality of virtual routers configured to share at least one resource, where each of the plurality of virtual routers is associated with a router profile that defines a security level and resource sharing priority for the virtual router; a resource-shared information base configured to maintain the at least one resource; and a resource allocator configured to receive a request for access to the at least one resource and grant access to the at least one resource to one of the plurality of virtual routers based on the security level and resource sharing priority associated with the one virtual router. AYRES and CLARK et al. do not disclose or suggest this combination of features.

For example, AYRES and CLARK et al. do not disclose or suggest a resource allocator configured to receive a request for access to the at least one resource and grant access to the at least one resource to one of the plurality of virtual routers based on the security level and resource sharing priority associated with the one virtual router. The Examiner relies on col. 7, lines 52-63, and col. 8, lines 29-33, of AYRES for allegedly disclosing a resource allocator that is configured to receive a request for access to the at least one resource and grant access to the at least one resource to one of the plurality of virtual routers based on a profile associated with the one virtual router (Office Action, pg. 7). Applicant submits that these sections of AYRES in no way disclose or suggest a resource allocator that grants access to at least one resource based on a security level and resource sharing priority associated with a virtual router, as currently recited in claim 27.

At col. 7, lines 52-63, AYRES discloses:

A traditional router RTOS system would allocate (and restrict) resources equally among the different users, i.e., with 5% of the total bandwidth to each end user 24, despite the fact that the lone end user 24 of VRI 50 should have half (50%) of the available router bandwidth, with the nineteen end users 24 of VRI 52 sharing the other half among themselves.

By being able to control the flow rates of individual ingress data queues, the present invention overcomes this drawback in the prior art. Also, individual user or VRI bandwidth guarantees (i.e., on an ingress data queue level) are possible with the present invention.

This section of AYRES discloses the ability to guarantee bandwidth to an individual user or virtual router instance (VRI). This section of AYRES in no way discloses or suggests a resource allocator configured to receive a request for access to the at least one resource and grant access to the at least one resource to one of the plurality of virtual routers based on the security level and resource sharing priority associated with the one virtual router, as required by amended claim 27.

At col. 8, lines 29-34, AYRES discloses:

The flow manager 54 also manages data bursts that may be received on each ingress data queue 48. The QOS user profiles 74 preferably provide for an end user 24 to be given an additional amount of packet processing bandwidth for a short period of time in order to accommodate for occasional burst packet traffic.

This section of AYRES discloses quality of service (QoS) user profiles that indicate an amount of bandwidth that can be given to the users. This section of AYRES in no way discloses or suggests a resource allocator configured to receive a request for access to the at least one resource and grant access to the at least one resource to one of the plurality of virtual routers based on the security level and resource sharing priority associated with the one virtual router, as required by amended claim 27.

The disclosure of CLARK et al. does not remedy the above deficiencies in the disclosure of AYRES.

For at least the foregoing reasons, Applicant submits that claim 27 is patentable over AYRES and CLARK et al., whether taken alone or in any reasonable combination.

Claims 28 and 29 depend from claim 27. Therefore, these claims are patentable over AYRES and CLARK et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 27.

New claims 30-32 recite features not disclosed or suggested by the art of record. For example, independent claim 30 is directed to a router system that includes a first virtual router configured to operate as a backbone router, and a second virtual router configured to operate as a regional router. The art of record does not disclose or suggest this combination of features.

Claims 31 and 32 depend from claim 30. Therefore, these claims are patentable over the art of record for at least the reasons given above with respect to claim 30.

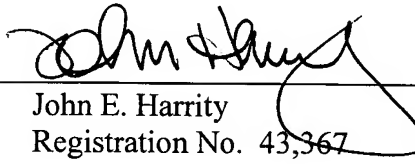
In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account No. 07-2347 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY SNYDER, L.L.P.

By: 
John E. Harrity
Registration No. 43,367

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11350 Random Hills Road
Suite 600
Fairfax, Virginia 22030
(571) 432-0800

JEH:bof